

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/561, 132
Source: IFLWP
Date Processed by STIC: 01/04/2006

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/561, 132

CRF Edit Date: 01/04/2006
Edited by: DA

— Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

— Corrected the SEQ ID NO. Sequence numbers edited were:

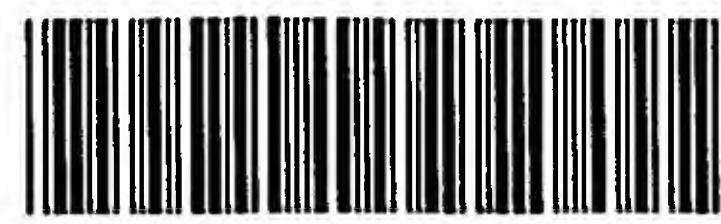
— Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

— Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

— Inserted mandatory headings/numeric identifiers, specifically:

— Moved responses to same line as heading/numeric identifier, specifically:

— Other: Inserted Mandatory field Identifier



IFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/561,132

DATE: 01/04/2006
TIME: 12:51:37

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\01042006\J561132.raw

3 <110> APPLICANT: Adams, John W
4 Connolly, Daniel T
6 <120> TITLE OF INVENTION: Human G Protein-Coupled Receptor and Modulators
Thereof For the
7 Treatment of Cardiovascular Disorders
9 <130> FILE REFERENCE: 60.US2.PCT
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/561,132
C--> 11 <141> CURRENT FILING DATE: 2005-12-16
11 <150> PRIOR APPLICATION NUMBER: 60/480,046
12 <151> PRIOR FILING DATE: 2003-06-20
14 <160> NUMBER OF SEQ ID NOS: 12
16 <170> SOFTWARE: PatentIn version 3.2
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 4041
20 <212> TYPE: DNA
21 <213> ORGANISM: Homo sapien
23 <400> SEQUENCE: 1
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28 ccagctggtg aagaggcact gaggcaaaaa cgagccgttgc ccacaaaaag tcctacggct 180
30 gaagaataca ctgttaatat tgagatcgt tttgaaaatg catccttcct ggatcctatc 240
32 aaagcctact tgaacagcct cagtttcca attcatggga ataacactga ccaaattact 300
34 gacatttga gcataaatgt gacaacagtc tgcagacctg ctggaaatga aatctggtgc 360
36 tcctgcgaga caggttatgg gtggcctcgg gaaaggtgtc ttcacaatct catttgc 420
38 gagcgtgacg tctcctccc agggcaccat tgcagttgcc ttaaagaact gcctcccaat 480
40 ggacctttt gcctgcttca ggaagatgtt accctgaaca tgagagtcag actaaatgt 540
42 ggcttcaag aagacactcat gaacacttcc tccgcctct ataggtccta caagaccgac 600
44 ttggaaacag cgtccggaa gggttacgga atttaccag gcttcaaggg cgtgactgtg 660
46 acagggttca agtctggaag tgtggttgtg acatatgaag tcaagactac accaccatca 720
48 cttgagttaa tacataaagc caatgaacaa gttgtacaga gcctcaatca gacctacaaa 780
50 atggactaca actcctttca agcagttact atcaatgaaa gcaatttctt tgtcacacca 840
52 gaaatcatct ttgaaggggaa cacagtcaatgt ctgggtgtg aaaaggaagt tttgcctcc 900
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56 atttacaccg cactttcaa caacatgact tcgggtgtcca agtcaccat ccacaacatc 1020
58 actccaggtg atgcaggtga atatgtttgc aaactgatata tagacattt tgaatatgag 1080
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62 atgtgcgaca acaatcctgt atctttgaac tgctgcagtc aggtaatgt taattggagc 1200
64 aaagtagaat ggaagcagga agaaaaata aatattccag gaacccctga gacagacata 1260
66 gattctagct gcagcagata caccctcaag gctgatggaa cccagtgcgg aagcgggtcg 1320
68 tctggaacaa cagtcata cacttgtgag ttcatcgtg cctatggagc cagaggcagt 1380
70 gcaaacataa aagtgcatt catctctgtg gccaatctaa caataacccc ggacccaatt 1440
72 tctgtttctg agggacaaaa cttttctata aaatgcata gtgatgtgag taactatgt 1500
74 gaggtttatt ggaacacttc tgctggatt aaaatatacc aaagattta taccacgagg 1560
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Input Set : A:\pto.da.txt
Output Set: N:\CRF4\01042006\J561132.raw

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82	tcatgcagtg gttccatca catcaagtgc tgcatagagg aggatggaga ctacaaagtt	1800
84	actttccata tgggttcctc atcccttcct gctgcaaaag aagttacaa aaaacaagtg	1860
86	tgctacaaac acaatttcaa tgcaagctca gttcctggt gttcaaaaac tggatgtg	1920
88	tgttgcact ttaccaatgc tgctaataat tcagtttggaa gccatctat gaagctgaat	1980
90	ctggttcctg gggaaaacat cacatgccag gatcccgtaa taggtgtcg agagccgggg	2040
92	aaagtcatcc agaagctatg ccgggtctca aacgttccca gcagccctga gagtcccatt	2100
94	ggcgggacca tcacttacaa atgtgttaggc tcccagtggg aggagaagag aaatgactgc	2160
96	atctctgccc caataaacag tctgctccag atggctaagg ctttgcataa gagccctct	2220
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100	catgaaatca gctttctcc tggagatctg ggagccatta ttaacatcct tgatctgctc	2340
102	tcaacagttc caacccaaat aaattcagaa atgatgacgc acgtgcttc tacggtaat	2400
104	gtcatcctg gcaagccgt ctgtacacc accgggttt tacaacagca atggaccaat	2460
106	cagagttcac agtactaca ttcaatggaa agatttccc aacattaca gtcaggagat	2520
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110	agccacccag aaacctatca acagagggtt gtttccat acttgcacct ctggggcaat	2640
112	gtggtcattt acaagagcta tctagaaaac ttgcagtcgg attcgctat tgcaccatg	2700
114	gcttcccaa ctctccaagc catcctgct caggatatcc aggaaaataa ctttgcagag	2760
116	agcttagtga tgacaaccac tgcagccac aatacgacta tgccattcag gatttcaatg	2820
118	actttttaaga acaatagccc ttcaatgggc gaaacgaatgt gtgtcttctg gaacttcagg	2880
120	cttgccaaca acacaggggg gtggacagc agtgggtgct atgttgaaga aggtgatgg	2940
122	gacaatgtca cctgtatctg tgaccacca acatcattct ccattctcat gtccctgac	3000
124	tcccccagatc ctatcttctc cttggaaata ctcctggata ttatttcta tggatgggtg	3060
126	ggctttcca tcttgcgtt ggcagccgt ctgttgcgg aagctgtgg gtggaaatcg	3120
128	gtgaccaaga atcgacttc ttatatgcgc cacacctgca tagtgaatat cgctgcctcc	3180
130	cttctggcg ccaacacccgt gttcattgtg gtcgtgccca tccaggacaa tcgctacata	3240
132	ctctgcaaga cagcctgtgt ggctgcccacc ttcttcatcc acttcttcta cctcagcgtc	3300
134	ttcttctggaa tgctgacact gggcctcatg ctgttctatc gcctgggttt cattctgcata	3360
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140	gtctgttgc tcaactggaa ggacaccaag gcccgtgg ctttcgccat cccagcactg	3540
142	atcattgtgg tggtaacat aaccatact attgtgtca tcaccaagat cctgaggcct	3600
144	tccattggag acaagccatg caagcaggag aagagcagcc tggatgtcgat cagcaagagc	3660
146	atgggggtcc tcacaccact cttggcctc acttgggtt tggatgtcgat cactgtgttc	3720
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154	cctgtgttt ctatgagttc tccaaatataa agagatata acaattgtt tggtaaaaca	3960
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162	<211> LENGTH: 1346	
163	<212> TYPE: PRT	
164	<213> ORGANISM: Homo sapien	
166	<220> FEATURE:	
168	<221> NAME/KEY: VARIANT	
169	<222> LOCATION: 604	
170	<223> OTHER INFORMATION: Polymorphic amino acid Met or Thr	

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TIME: 12:51:37

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\01042006\J561132.raw

172 <221> NAME/KEY: VARIANT
173 <222> LOCATION: 801
174 <223> OTHER INFORMATION: Polymorphic amino acid Val or Ile
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177 <222> LOCATION: 856
178 <223> OTHER INFORMATION: Polymorphic amino acid Thr or Met
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186 Tyr Ser Ser Lys Ala Ala Leu Asn Trp Asn Tyr Glu Ser Thr Ile His
187 20 25 30
190 Pro Leu Ser Leu His Glu His Glu Pro Ala Gly Glu Ala Leu Arg
191 35 40 45
194 Gln Lys Arg Ala Val Ala Thr Lys Ser Pro Thr Ala Glu Glu Tyr Thr
195 50 55 60
198 Val Asn Ile Glu Ile Ser Phe Glu Asn Ala Ser Phe Leu Asp Pro Ile
199 65 70 75 80
202 Lys Ala Tyr Leu Asn Ser Leu Ser Phe Pro Ile His Gly Asn Asn Thr
203 85 90 95
206 Asp Gln Ile Thr Asp Ile Leu Ser Ile Asn Val Thr Thr Val Cys Arg
207 100 105 110
210 Pro Ala Gly Asn Glu Ile Trp Cys Ser Cys Glu Thr Gly Tyr Gly Trp
211 115 120 125
214 Pro Arg Glu Arg Cys Leu His Asn Leu Ile Cys Gln Glu Arg Asp Val
215 130 135 140
218 Phe Leu Pro Gly His His Cys Ser Cys Leu Lys Glu Leu Pro Pro Asn
219 145 150 155 160
222 Gly Pro Phe Cys Leu Leu Gln Glu Asp Val Thr Leu Asn Met Arg Val
223 165 170 175
226 Arg Leu Asn Val Gly Phe Gln Glu Asp Leu Met Asn Thr Ser Ser Ala
227 180 185 190
230 Leu Tyr Arg Ser Tyr Lys Thr Asp Leu Glu Thr Ala Phe Arg Lys Gly
231 195 200 205
234 Tyr Gly Ile Leu Pro Gly Phe Lys Gly Val Thr Val Thr Gly Phe Lys
235 210 215 220
238 Ser Gly Ser Val Val Val Thr Tyr Glu Val Lys Thr Thr Pro Pro Ser
239 225 230 235 240
242 Leu Glu Leu Ile His Lys Ala Asn Glu Gln Val Val Gln Ser Leu Asn
243 245 250 255
246 Gln Thr Tyr Lys Met Asp Tyr Asn Ser Phe Gln Ala Val Thr Ile Asn
247 260 265 270
250 Glu Ser Asn Phe Phe Val Thr Pro Glu Ile Ile Phe Glu Gly Asp Thr
251 275 280 285
254 Val Ser Leu Val Cys Glu Lys Glu Val Leu Ser Ser Asn Val Ser Trp
255 290 295 300
258 Arg Tyr Glu Glu Gln Gln Leu Glu Ile Gln Asn Ser Ser Arg Phe Ser
259 305 310 315 320
262 Ile Tyr Thr Ala Leu Phe Asn Asn Met Thr Ser Val Ser Lys Leu Thr
263 325 330 335

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/561,132

DATE: 01/04/2006

TIME: 12:51:37

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\01042006\J561132.raw

266 Ile His Asn Ile Thr Pro Gly Asp Ala Gly Glu Tyr Val Cys Lys Leu
 267 340 345 350
 270 Ile Leu Asp Ile Phe Glu Tyr Glu Cys Lys Lys Lys Ile Asp Val Met
 271 355 360 365
 274 Pro Ile Gln Ile Leu Ala Asn Glu Glu Met Lys Val Met Cys Asp Asn
 275 370 375 380
 278 Asn Pro Val Ser Leu Asn Cys Cys Ser Gln Gly Asn Val Asn Trp Ser
 279 385 390 395 400
 282 Lys Val Glu Trp Lys Gln Glu Gly Lys Ile Asn Ile Pro Gly Thr Pro
 283 405 410 415
 286 Glu Thr Asp Ile Asp Ser Ser Cys Ser Arg Tyr Thr Leu Lys Ala Asp
 287 420 425 430
 290 Gly Thr Gln Cys Pro Ser Gly Ser Ser Gly Thr Thr Val Ile Tyr Thr
 291 435 440 445
 294 Cys Glu Phe Ile Ser Ala Tyr Gly Ala Arg Gly Ser Ala Asn Ile Lys
 295 450 455 460
 298 Val Thr Phe Ile Ser Val Ala Asn Leu Thr Ile Thr Pro Asp Pro Ile
 299 465 470 475 480
 302 Ser Val Ser Glu Gly Gln Asn Phe Ser Ile Lys Cys Ile Ser Asp Val
 303 485 490 495
 306 Ser Asn Tyr Asp Glu Val Tyr Trp Asn Thr Ser Ala Gly Ile Lys Ile
 307 500 505 510
 310 Tyr Gln Arg Phe Tyr Thr Thr Arg Arg Tyr Leu Asp Gly Ala Glu Ser
 311 515 520 525
 314 Val Leu Thr Val Lys Thr Ser Thr Arg Glu Trp Asn Gly Thr Tyr His
 315 530 535 540
 318 Cys Ile Phe Arg Tyr Lys Asn Ser Tyr Ser Ile Ala Thr Lys Asp Val
 319 545 550 555 560
 322 Ile Val His Pro Leu Pro Leu Lys Leu Asn Ile Met Val Asp Pro Leu
 323 565 570 575
 326 Glu Ala Thr Val Ser Cys Ser Gly Ser His His Ile Lys Cys Cys Ile
 327 580 585 590
 330 Glu Glu Asp Gly Asp Tyr Lys Val Thr Phe His Met Gly Ser Ser Ser
 331 595 600 605
 334 Leu Pro Ala Ala Lys Glu Val Asn Lys Lys Gln Val Cys Tyr Lys His
 335 610 615 620
 338 Asn Phe Asn Ala Ser Ser Val Ser Trp Cys Ser Lys Thr Val Asp Val
 339 625 630 635 640
 342 Cys Cys His Phe Thr Asn Ala Ala Asn Asn Ser Val Trp Ser Pro Ser
 343 645 650 655
 346 Met Lys Leu Asn Leu Val Pro Gly Glu Asn Ile Thr Cys Gln Asp Pro
 347 660 665 670
 350 Val Ile Gly Val Gly Glu Pro Gly Lys Val Ile Gln Lys Leu Cys Arg
 351 675 680 685
 354 Phe Ser Asn Val Pro Ser Ser Pro Glu Ser Pro Ile Gly Gly Thr Ile
 355 690 695 700
 358 Thr Tyr Lys Cys Val Gly Ser Gln Trp Glu Glu Lys Arg Asn Asp Cys
 359 705 710 715 720
 362 Ile Ser Ala Pro Ile Asn Ser Leu Leu Gln Met Ala Lys Ala Leu Ile

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/561,132

DATE: 01/04/2006
TIME: 12:51:37

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\01042006\J561132.raw

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366	Lys Ser Pro Ser Gln Asp Glu Met Leu Pro Thr Tyr Leu Lys Asp Leu		
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370	Ser Ile Ser Ile Asp Lys Ala Glu His Glu Ile Ser Ser Ser Pro Gly		
371	755	760	765
374	Ser Leu Gly Ala Ile Ile Asn Ile Leu Asp Leu Leu Ser Thr Val Pro		
375	770	775	780
378	Thr Gln Val Asn Ser Glu Met Met Thr His Val Leu Ser Thr Val Asn		
379	785	790	795
382	Val Ile Leu Gly Lys Pro Val Leu Asn Thr Trp Lys Val Leu Gln Gln		
383	805	810	815
386	Gln Trp Thr Asn Gln Ser Ser Gln Leu Leu His Ser Val Glu Arg Phe		
387	820	825	830
390	Ser Gln Ala Leu Gln Ser Gly Asp Ser Pro Pro Leu Ser Phe Ser Gln		
391	835	840	845
394	Thr Asn Val Gln Met Ser Ser Thr Val Ile Lys Ser Ser His Pro Glu		
395	850	855	860
398	Thr Tyr Gln Gln Arg Phe Val Phe Pro Tyr Phe Asp Leu Trp Gly Asn		
399	865	870	875
402	Val Val Ile Asp Lys Ser Tyr Leu Glu Asn Leu Gln Ser Asp Ser Ser		
403	885	890	895
406	Ile Val Thr Met Ala Phe Pro Thr Leu Gln Ala Ile Leu Ala Gln Asp		
407	900	905	910
410	Ile Gln Glu Asn Asn Phe Ala Glu Ser Leu Val Met Thr Thr Thr Val		
411	915	920	925
414	Ser His Asn Thr Thr Met Pro Phe Arg Ile Ser Met Thr Phe Lys Asn		
415	930	935	940
418	Asn Ser Pro Ser Gly Gly Glu Thr Lys Cys Val Phe Trp Asn Phe Arg		
419	945	950	955
422	Leu Ala Asn Asn Thr Gly Gly Trp Asp Ser Ser Gly Cys Tyr Val Glu		
423	965	970	975
426	Glu Gly Asp Gly Asp Asn Val Thr Cys Ile Cys Asp His Leu Thr Ser		
427	980	985	990
430	Phe Ser Ile Leu Met Ser Pro Asp Ser Pro Asp Pro Ser Ser Leu Leu		
431	995	1000	1005
434	Gly Ile Leu Leu Asp Ile Ile Ser Tyr Val Gly Val Gly Phe Ser		
435	1010	1015	1020
438	Ile Leu Ser Leu Ala Ala Cys Leu Val Val Glu Ala Val Val Trp		
439	1025	1030	1035
442	Lys Ser Val Thr Lys Asn Arg Thr Ser Tyr Met Arg His Thr Cys		
443	1040	1045	1050
446	Ile Val Asn Ile Ala Ala Ser Leu Leu Val Ala Asn Thr Trp Phe		
447	1055	1060	1065
450	Ile Val Val Ala Ala Ile Gln Asp Asn Arg Tyr Ile Leu Cys Lys		
451	1070	1075	1080
454	Thr Ala Cys Val Ala Ala Thr Phe Phe Ile His Phe Phe Tyr Leu		
455	1085	1090	1095
458	Ser Val Phe Phe Trp Met Leu Thr Leu Gly Leu Met Leu Phe Tyr		
459	1100	1105	1110

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/561,132

DATE: 01/04/2006
TIME: 12:51:38

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\01042006\J561132.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:7,8,9,10,11,12

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/561,132

DATE: 01/04/2006

TIME: 12:51:38

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\01042006\J561132.raw

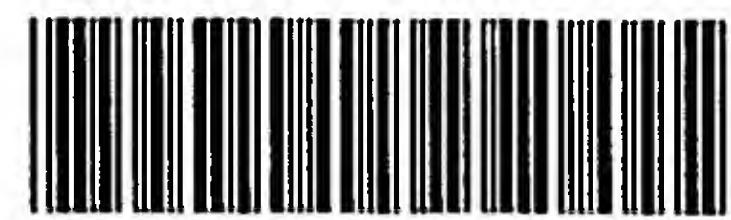
L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:176 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2

L:180 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2

**Raw Sequence Listing before editing,
for reference only**



JFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/561,132

DATE: 12/30/2005
TIME: 09:22:52

Input Set : A:\60.US2.PCT.txt
Output Set: N:\CRF4\12302005\J561132.raw

3 <110> APPLICANT: Adams, John W
4 Connolly, Daniel T
6 <120> TITLE OF INVENTION: Human G Protein-Coupled Receptor and Modulators Thereof For
the
7 Treatment of Cardiovascular Disorders
9 <130> FILE REFERENCE: 60.US2.PCT
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/561,132
C--> 11 <141> CURRENT FILING DATE: 2005-12-16
11 <150> PRIOR APPLICATION NUMBER: 60/480,046
12 <151> PRIOR FILING DATE: 2003-06-20
14 <160> NUMBER OF SEQ ID NOS: 12
16 <170> SOFTWARE: PatentIn version 3.2

Does Not Comply
Corrected Diskette Needed

(pg-1)

ERRORED SEQUENCES

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162 <211> LENGTH: 1346
163 <212> TYPE: PRT
164 <213> ORGANISM: Homo sapien → Inserted (2207)
166 <221> NAME/KEY: VARIANT
167 <222> LOCATION: 604
168 <223> OTHER INFORMATION: Polymorphic amino acid Met or Thr
W--> 170 <221> VARIANT
171 <222> LOCATION: 801
172 <223> OTHER INFORMATION: Polymorphic amino acid Val or Ile
W--> 174 <221> VARIANT
175 <222> LOCATION: 856
176 <223> OTHER INFORMATION: Polymorphic amino acid Thr or Met
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185 20 25 30
188 Pro Leu Ser Leu His Glu His Glu Pro Ala Gly Glu Glu Ala Leu Arg
189 35 40 45
192 Gln Lys Arg Ala Val Ala Thr Lys Ser Pro Thr Ala Glu Glu Tyr Thr
193 50 55 60
196 Val Asn Ile Glu Ile Ser Phe Glu Asn Ala Ser Phe Leu Asp Pro Ile
197 65 70 75 80
200 Lys Ala Tyr Leu Asn Ser Leu Ser Phe Pro Ile His Gly Asn Asn Thr
201 85 90 95
204 Asp Gln Ile Thr Asp Ile Leu Ser Ile Asn Val Thr Thr Val Cys Arg
205 100 105 110

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Input Set : A:\60.US2.PCT.txt
Output Set: N:\CRF4\12302005\J561132.raw

208 Pro Ala Gly Asn Glu Ile Trp Cys Ser Cys Glu Thr Gly Tyr Gly Trp
209 115 120 125
212 Pro Arg Glu Arg Cys Leu His Asn Leu Ile Cys Gln Glu Arg Asp Val
213 130 135 140
216 Phe Leu Pro Gly His His Cys Ser Cys Leu Lys Glu Leu Pro Pro Asn
217 145 150 155 160
220 Gly Pro Phe Cys Leu Leu Gln Glu Asp Val Thr Leu Asn Met Arg Val
221 165 170 175
224 Arg Leu Asn Val Gly Phe Gln Glu Asp Leu Met Asn Thr Ser Ser Ala
225 180 185 190
228 Leu Tyr Arg Ser Tyr Lys Thr Asp Leu Glu Thr Ala Phe Arg Lys Gly
229 195 200 205
232 Tyr Gly Ile Leu Pro Gly Phe Lys Gly Val Thr Val Thr Gly Phe Lys
233 210 215 220
236 Ser Gly Ser Val Val Val Thr Tyr Glu Val Lys Thr Thr Pro Pro Ser
237 225 230 235 240
240 Leu Glu Leu Ile His Lys Ala Asn Glu Gln Val Val Gln Ser Leu Asn
241 245 250 255
244 Gln Thr Tyr Lys Met Asp Tyr Asn Ser Phe Gln Ala Val Thr Ile Asn
245 260 265 270
248 Glu Ser Asn Phe Phe Val Thr Pro Glu Ile Ile Phe Glu Gly Asp Thr
249 275 280 285
252 Val Ser Leu Val Cys Glu Lys Glu Val Leu Ser Ser Asn Val Ser Trp
253 290 295 300
256 Arg Tyr Glu Glu Gln Gln Leu Glu Ile Gln Asn Ser Ser Arg Phe Ser
257 305 / 310 315 320
260 Ile Tyr Thr Ala Leu Phe Asn Asn Met Thr Ser Val Ser Lys Leu Thr
261 325 330 335
264 Ile His Asn Ile Thr Pro Gly Asp Ala Gly Glu Tyr Val Cys Lys Leu
265 340 345 350
268 Ile Leu Asp Ile Phe Glu Tyr Glu Cys Lys Lys Ile Asp Val Met
269 355 360 365
272 Pro Ile Gln Ile Leu Ala Asn Glu Glu Met Lys Val Met Cys Asp Asn
273 370 375 380
276 Asn Pro Val Ser Leu Asn Cys Cys Ser Gln Gly Asn Val Asn Trp Ser
277 385 390 395 400
280 Lys Val Glu Trp Lys Gln Glu Gly Lys Ile Asn Ile Pro Gly Thr Pro
281 405 410 415
284 Glu Thr Asp Ile Asp Ser Ser Cys Ser Arg Tyr Thr Leu Lys Ala Asp
285 420 425 430
288 Gly Thr Gln Cys Pro Ser Gly Ser Ser Gly Thr Thr Val Ile Tyr Thr
289 435 440 445
292 Cys Glu Phe Ile Ser Ala Tyr Gly Ala Arg Gly Ser Ala Asn Ile Lys
293 450 455 460
296 Val Thr Phe Ile Ser Val Ala Asn Leu Thr Ile Thr Pro Asp Pro Ile
297 465 470 475 480
300 Ser Val Ser Glu Gly Gln Asn Phe Ser Ile Lys Cys Ile Ser Asp Val
301 485 490 495
304 Ser Asn Tyr Asp Glu Val Tyr Trp Asn Thr Ser Ala Gly Ile Lys Ile

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DATE: 12/30/2005
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Input Set : A:\60.US2.PCT.txt
Output Set: N:\CRF4\12302005\J561132.raw

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313	530	535	540
316	Cys Ile Phe Arg Tyr Lys Asn Ser Tyr Ser Ile Ala Thr Lys Asp Val		
317	545	550	555
320	Ile Val His Pro Leu Pro Leu Lys Leu Asn Ile Met Val Asp Pro Leu		
321	565	570	575
324	Glu Ala Thr Val Ser Cys Ser Gly Ser His His Ile Lys Cys Cys Ile		
325	580	585	590
328	Glu Glu Asp Gly Asp Tyr Lys Val Thr Phe His Met Gly Ser Ser Ser		
329	595	600	605
332	Leu Pro Ala Ala Lys Glu Val Asn Lys Lys Gln Val Cys Tyr Lys His		
333	610	615	620
336	Asn Phe Asn Ala Ser Ser Val Ser Trp Cys Ser Lys Thr Val Asp Val		
337	625	630	635
340	Cys Cys His Phe Thr Asn Ala Ala Asn Asn Ser Val Trp Ser Pro Ser		
341	645	650	655
344	Met Lys Leu Asn Leu Val Pro Gly Glu Asn Ile Thr Cys Gln Asp Pro		
345	660	665	670
348	Val Ile Gly Val Gly Glu Pro Gly Lys Val Ile Gln Lys Leu Cys Arg		
349	675	680	685
352	Phe Ser Asn Val Pro Ser Ser Pro Glu Ser Pro Ile Gly Gly Thr Ile		
353	690	695	700
356	Thr Tyr Lys Cys Val Gly Ser Gln Trp Glu Glu Lys Arg Asn Asp Cys		
357	705	710	715
360	Ile Ser Ala Pro Ile Asn Ser Leu Leu Gln Met Ala Lys Ala Leu Ile		
361	725	730	735
364	Lys Ser Pro Ser Gln Asp Glu Met Leu Pro Thr Tyr Leu Lys Asp Leu		
365	740	745	750
368	Ser Ile Ser Ile Asp Lys Ala Glu His Glu Ile Ser Ser Ser Pro Gly		
369	755	760	765
372	Ser Leu Gly Ala Ile Ile Asn Ile Leu Asp Leu Leu Ser Thr Val Pro		
373	770	775	780
376	Thr Gln Val Asn Ser Glu Met Met Thr His Val Leu Ser Thr Val Asn		
377	785	790	795
380	Val Ile Leu Gly Lys Pro Val Leu Asn Thr Trp Lys Val Leu Gln Gln		
381	805	810	815
384	Gln Trp Thr Asn Gln Ser Ser Gln Leu Leu His Ser Val Glu Arg Phe		
385	820	825	830
388	Ser Gln Ala Leu Gln Ser Gly Asp Ser Pro Pro Leu Ser Phe Ser Gln		
389	835	840	845
392	Thr Asn Val Gln Met Ser Ser Thr Val Ile Lys Ser Ser His Pro Glu		
393	850	855	860
396	Thr Tyr Gln Gln Arg Phe Val Phe Pro Tyr Phe Asp Leu Trp Gly Asn		
397	865	870	875
400	Val Val Ile Asp Lys Ser Tyr Leu Glu Asn Leu Gln Ser Asp Ser Ser		
401	885	890	895

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/561,132

DATE: 12/30/2005
TIME: 09:22:52

Input Set : A:\60.US2.PCT.txt
Output Set: N:\CRF4\12302005\J561132.raw

404 Ile Val Thr Met Ala Phe Pro Thr Leu Gln Ala Ile Leu Ala Gln Asp
 405 900 905 910
 408 Ile Gln Glu Asn Asn Phe Ala Glu Ser Leu Val Met Thr Thr Thr Val
 409 915 920 925
 412 Ser His Asn Thr Thr Met Pro Phe Arg Ile Ser Met Thr Phe Lys Asn
 413 930 935 940
 416 Asn Ser Pro Ser Gly Gly Glu Thr Lys Cys Val Phe Trp Asn Phe Arg
 417 945 950 955 960
 420 Leu Ala Asn Asn Thr Gly Gly Trp Asp Ser Ser Gly Cys Tyr Val Glu
 421 965 970 975
 424 Glu Gly Asp Gly Asp Asn Val Thr Cys Ile Cys Asp His Leu Thr Ser
 425 980 985 990
 428 Phe Ser Ile Leu Met Ser Pro Asp Ser Pro Asp Pro Ser Ser Leu Leu
 429 995 1000 1005
 432 Gly Ile Leu Leu Asp Ile Ile Ser Tyr Val Gly Val Gly Phe Ser
 433 1010 1015 1020
 436 Ile Leu Ser Leu Ala Ala Cys Leu Val Val Glu Ala Val Val Trp
 437 1025 1030 1035
 440 Lys Ser Val Thr Lys Asn Arg Thr Ser Tyr Met Arg His Thr Cys
 441 1040 1045 1050
 444 Ile Val Asn Ile Ala Ala Ser Leu Leu Val Ala Asn Thr Trp Phe
 445 1055 1060 1065
 448 Ile Val Val Ala Ala Ile Gln Asp Asn Arg Tyr Ile Leu Cys Lys
 449 1070 1075 1080
 452 Thr Ala Cys Val Ala Ala Thr Phe Phe Ile His Phe Phe Tyr Leu
 453 1085 1090 1095
 456 Ser Val Phe Phe Trp Met Leu Thr Leu Gly Leu Met Leu Phe Tyr
 457 1100 1105 1110
 460 Arg Leu Val Phe Ile Leu His Glu Thr Ser Arg Ser Thr Gln Lys
 461 1115 1120 1125
 464 Ala Ile Ala Phe Cys Leu Gly Tyr Gly Cys Pro Leu Ala Ile Ser
 465 1130 1135 1140
 468 Val Ile Thr Leu Gly Ala Thr Gln Pro Arg Glu Val Tyr Thr Arg
 469 1145 1150 1155
 472 Lys Asn Val Cys Trp Leu Asn Trp Glu Asp Thr Lys Ala Leu Leu
 473 1160 1165 1170
 476 Ala Phe Ala Ile Pro Ala Leu Ile Ile Val Val Val Asn Ile Thr
 477 1175 1180 1185
 480 Ile Thr Ile Val Val Ile Thr Lys Ile Leu Arg Pro Ser Ile Gly
 481 1190 1195 1200
 484 Asp Lys Pro Cys Lys Gln Glu Lys Ser Ser Leu Phe Gln Ile Ser
 485 1205 1210 1215
 488 Lys Ser Ile Gly Val Leu Thr Pro Leu Leu Gly Leu Thr Trp Gly
 489 1220 1225 1230
 492 Phe Gly Leu Thr Thr Val Phe Pro Gly Thr Asn Leu Val Phe His
 493 1235 1240 1245
 496 Ile Ile Phe Ala Ile Leu Asn Val Phe Gln Gly Leu Phe Ile Leu
 497 1250 1255 1260
 500 Leu Phe Gly Cys Leu Trp Asp Leu Lys Val Gln Glu Ala Leu Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/561,132

DATE: 12/30/2005
TIME: 09:22:52

Input Set : A:\60.US2.PCT.txt
Output Set: N:\CRF4\12302005\J561132.raw

501	1265	1270	1275
504	Asn Lys Phe Ser Leu Ser Arg	Trp Ser Ser Gln His	Ser Lys Ser
505	1280	1285	1290
508	Thr Ser Leu Gly Ser Ser Thr	Pro Val Phe Ser Met	Ser Ser Pro
509	1295	1300	1305
512	Ile Ser Arg Arg Phe Asn Asn	Leu Phe Gly Lys Thr	Gly Thr Tyr
513	1310	1315	1320
516	Asn Val Ser Thr Pro Glu Ala	Thr Ser Ser Ser Leu	Glu Asn Ser
517	1325	1330	1335
520	Ser Ser Ala Ser Ser Leu Leu	Asn	
521	1340	1345	

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/561,132

DATE: 12/30/2005
TIME: 09:22:53

Input Set : A:\60.US2.PCT.txt
Output Set: N:\CRF4\12302005\J561132.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:7,8,9,10,11,12

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/561,132

DATE: 12/30/2005
TIME: 09:22:53

Input Set : A:\60.US2.PCT.txt
Output Set: N:\CRF4\12302005\J561132.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:170 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:174 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
L:178 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:2
L:178 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2